MAT.06.ER.3.000EE.B.176 Claim 3

Sample Item ID:	MAT.06.ER.3.000EE.B.176
Grade:	06
Primary Claim:	**Claim 3: Communicating Reasoning** Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
Secondary Claim(s):	Claim 1: Concepts and Procedures Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Primary Content Domain:	The Number System
Secondary Content Domain(s):	
Assessment Target(s):	3 B: Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. 1 E: Apply and extend previous understandings of arithmetic or algebraic expressions.
Standard(s):	6.EE.3
Mathematical Practice(s):	1, 2, 3
DOK:	3
Item Type:	ER
Score Points:	2
Difficulty:	M
Key:	See Sample Top-Score Response.
Stimulus/Source:	
Target-Specific Attributes (e.g., accessibility issues):	
Notes:	Part of PT set

Two expressions are shown below.

$$P: \ 2(3x - 9)$$

$$Q: \ 6x - 9$$

Part A

Apply the distributive property to write an expression that is equivalent to expression *P*.

Part B

Explain whether or not expressions *P* and *Q* are equivalent for any value of *x*.

Sample Top-Score Response:

Part A:
$6x - 18$

Part B:
P and *Q* are not equivalent since the distributive property was not applied correctly. The first terms of P and Q, 6*x*, are equivalent, but the second terms of P and Q, –18 and –9 respectively, are different.

Scoring Rubric:

Responses to this item will receive 0-2 points, based on the following:

2 points: The student shows thorough understanding of why the expressions *P* and *Q* are not equivalent and generates an equivalent expression for *P* by applying the distributive property.

1 point: The student generates an equivalent expression for *P* by applying the distributive property, but is not able to adequately explain that *P* and *Q* are not equivalent. **OR** The student can adequately explain why *P* and *Q* are not equivalent but makes an error in applying the distributive property to *P* when generating an equivalent expression.

0 points: The student shows little or no understanding of why the equations are not equivalent and does not generate an equivalent expression when applying the distributive property. Stating that the expressions are not equivalent, without proper support, is not sufficient to earn any points.